



INTRO TO SIX SIGMA

What is Six Sigma and how can it help a small business owner?

Six Sigma is a set of management tools and methodologies intended to improve business processes by greatly reducing the probability that an error or defect will occur. Errors and defects cost money. Using these management tools and methodologies the small business owner can create a better business plan; identify, define and manage key processes; and learn how to use customer requirements to increase the probability of long term success.

Better processes = less waste (costs), more cash, happier employees and satisfied customers.

The most common application of Six Sigma methodologies is in manufacturing, using statistics and data to monitor output and identify manufacturing defects. Once defects are identified, Six Sigma or process improvement uses a set of tools to determine “Why” it happened and then “How” to fix it. It was first applied during the 1970s at Motorola¹. It is heavily used at large manufacturing and industrial giants; however, there are many tools and methodologies that can be applied to smaller businesses and those businesses that are not manufacturing.

The definition of “sigma” is standard deviation from a measurable norm. The measurable norm can be length, weight, time, color. Six sigma is + or – 3 standard deviations from the norm. Sometimes this concept seems too scientific, just think of it as what the customer wants and will pay for. The greater a product deviates from the requirement, the more likely customers will become dissatisfied.

A simple example of this principle is the production of shoes. The standard difference in shoe sizes is 1/3 inch. The standard deviation may be 1/16 inch. Using the Six Sigma concept, 99% of shoes must be within + or – 1/16 of its designated shoe size. A quality review of shoes can determine if shoes are the correct size. Once the number of shoes outside the tolerance is greater than 1/16 then the manufacturing process is gone askew. Keep in mind this concept is all about measurements and random quality review to be sure the customer is satisfied.

It’s assumed that the product or service being offered by the business is something people want and are willing to pay for. The Metamorphism team will aid you in defining the details of the business plan using Six Sigma (process definition, control, improvement, and limit process variability with customer focus) concepts and tools taking into consideration the principle components of business management.

¹ “The History of Six Sigma”, [isixsigma.com](https://www.isixsigma.com/new-to-six-sigma/history/history-six-sigma/), <https://www.isixsigma.com/new-to-six-sigma/history/history-six-sigma/>, (October 11, 2016).